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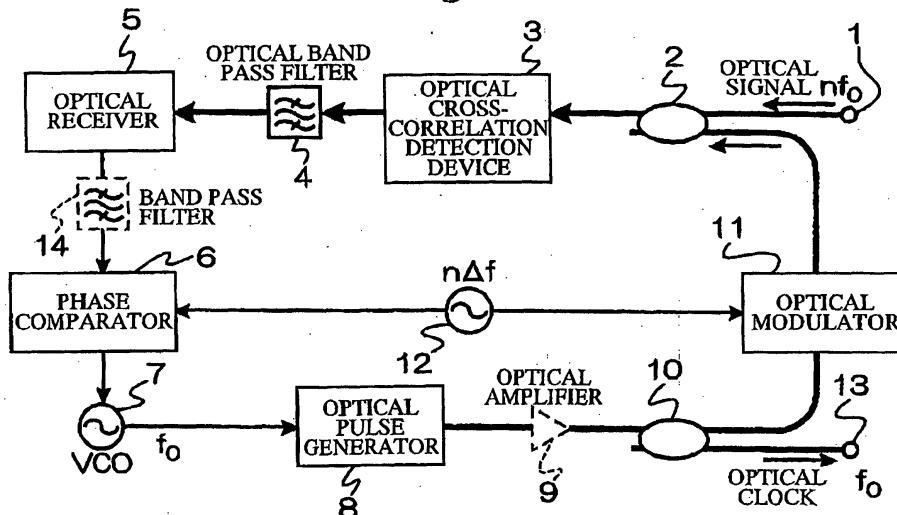
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(54) **Optical clock phase-locked loop circuit**

(57) This optical clock phase-locked loop circuit includes an oscillator 12, an optical coupler 2, an optical cross-correlation detection device 3 that outputs light containing the correlating components of two lights from the coupled light of optical coupler 2, an optical band pass filter 4 that extracts light of a wavelength that contains cross-correlating components, an optical receiver 5, a phase comparator 6 that compares the phases of the output signal of the oscillator 12 and the cross-cor-

relation signal from the optical receiver 5, a voltage controlled oscillator 7 that changes the oscillation frequency and phase corresponding to the output of the phase comparator 6, an optical pulse generator 8 that generates an optical clock pulse containing an nth harmonic component, an optical coupler 10 that divides optical clock, and an optical modulator 11 driven by low-frequency oscillator 12 that modulates optical clock from optical coupler 10.

Fig. 1





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| Place of search THE HAGUE | | Date of completion of the search 4 September 2003 | Examiner Wolters, R |
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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